

the testimony of the ballistic engineer, Mr. Van Amburgh. It will be remembered that this witness states that in his opinion the fatal bullet was fired through the Israel revolver. If this opinion is well founded, then Israel is guilty, no matter what we may think of the character of the other evidence to which I have already referred. If, on the other hand, the testimony of this witness is not reliable and if it should appear that the mortal bullet was discharged through some weapon other than the Israel revolver, then Israel is innocent.

"This brings us to a general consideration of that class of expert testimony which deals with the identification of a bullet with a particular weapon where both are available for experimentation. In this case we have the Israel revolver and we have the mortal bullet. (Bullet is shown to the court.) Of late years there has grown up a system of examination in such cases which is based upon scientific theories, supplemented by actual experimentation. It has come to be a very definite science. Men qualify themselves by experience in dealing with such matters. Sometimes it is described as the science of "finger printing bullets." Of course, it is obvious any bullet discharged through a particular weapon will bear the marks of the weapon through which it has passed, and if the bullet be recovered and is in sufficiently good condition to be examined, it will often bear unmistakable traces of its previous history. Ordinarily, in such cases, witnesses measure the width of what are known as the "lands" and "grooves" on the bullet. They then make a cast of a portion of the barrel of the suspected weapon and make duplicate measurements. They then discharge experimental shots through the suspected weapon and recover the bullets thus fired. These bullets are usually fired into soft substances like cotton. The recovered bullets are then measured in the same manner and compared by means of the microscope and enlarged photographs with the suspected bullet. In addition to this, the experimental bullet is inspected for characteristic marks, if any are found, these are measured and located. The suspected bullet is then examined for similar marks. Consideration is given to the number and dimensions of lands and grooves, to the direction or twist of the rifling in

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